RANCHO SANTA ANA BOTANIC GARDEN
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SALVIA LEUCOPHYLLA

GRAY OR PURPLE SAGE

1943

RANCHO SANTA ANA BOTANIC GARDEN
of the
NATIVE PLANTS OF CALIFORNIA
Santa Ana Cañon, Orange County, California
Established 1927 in Memory of
JOHN W. BIXBY

SALVIA LEUCOPHYLLA
GRAY OR PURPLE SAGE

Labiatae Mint Family

Aromatic, evergreen shrub, 3-5 ft. high, of equal or greater spread, main stem several in. in diam.; upper portions herbaceous, dying back after fruiting. Bark of main branches gray, of young growth usually reddish or purplish-green, only lightly pubescent. Leaves opposite; petioles flattened, narrowly margined, $\frac{1}{4}$ in. long; blades 2-3 in. long, $\frac{1}{2}$-1 in. wide, oblong-lanceolate, usually with a truncate base, tapering to a blunt, rounded tip, strongly rugose above, the sparse pubescence of branched hairs, gray-green to gray above, gray and pubescent beneath, veins prominent, margins crenately toothed. Flowers borne toward ends of season's branchlets, in 1-5 dense whorls an inch or so apart; floral bracts oblong, $\frac{1}{4}$-$\frac{3}{4}$ in. long, densely gray-pubescent; flowers sessile; calyx $\frac{1}{2}$ in. long, split down one side; corolla rose-purple or lavender-pink, rarely white, 2-lipped, tube curved with calyx, upper $\frac{1}{3}$ exserted, bearing a ring of hairs within, upper lip erect, $\frac{3}{8}$-$\frac{1}{2}$ in. long, 2-lobed, lower lip not so strongly spreading, 3-lobed, central lobe longest; stamens 2, attached to corolla tube, exserted, jointed above middle, lower portion the filament, upper the connective, bearing a single anther cell at one end, other obsolete, reduced to a mere projection; style exserted, divided; ovary 4-celled, appearing as 4 lobes which mature into separate nutlets; seeds mottled brown, elongate, largest nearly $\frac{1}{8}$ in. long. In germination cotyledons appear above ground, are foliar, with petioles nearly $\frac{1}{2}$ in. long, blades $\frac{3}{8}$ in. long, $\frac{1}{4}$ in. wide, truncate at base, with 2 lobe-like projections and an obtuse apex; next few pairs of leaves resemble those on mature plants but are less than 1 in. long. Flowers mainly in May; seeds mature in June.

The genus *Salvia* (from Latin meaning to save, in reference to medicinal properties of some species) consists of over 500 species found on all continents. The Section *Audibertia,* once regarded as a distinct genus, comprises 18 species, most of which occur in California, but extend north to Washington, east to Utah, and south to Sonora and Baja California. Many species of *Salvia* are valuable ornamentals, and S. *officinalis,* of the Mediterranean region, has long been the most important source of sage leaves.

Salvia leucophylla (Latin for white and leaves) was proposed in 1892 by E. L. Greene (California botanist, 1842-1915). Prior to that time it was known as *Audibertia nivea* (Latin for snowy), a name given by Bentham in 1833, based upon a specimen by David Douglas, probably from Monterey Co. The specific name *nivea* could not be used for this plant under *Salvia* because of its earlier use for another species by Thunberg, in 1794.

The two most common English names used for *Salvia leucophylla* are Gray and Purple Sage. The first is applied because of the soft gray appearance of the plants during much of the year, while the second

is in reference to the showy flowers, which are in reality not purple, but lavender-pink or rose-purple, (rarely white). It is most abundant in the coastal hills from Santa Barbara Co. to Orange Co., but is known from as far north as the Big Sur River, Monterey Co. It is commonly gregarious on the hillsides in clay soils such as heavy adobe and shale, and only rarely extends into areas of sandstone. It is not particular as to slope or exposure, although the plants are largest on northerly slopes. When growing near *S. apiana* and *mellifera* it hybridizes with them, but the hybrids are not as beautiful as *S. leucophylla*. At the Garden it has crossed with *S. Clevelandii*, resulting in some fine blue-flowered offspring worthy of perpetuation.

Salvia leucophylla is well adapted to survive our long dry summer season, and its behavior is typical of several other plants of the soft chaparral. Shortly after the first fall rains the gray and apparently lifeless plants revive, and the old leaves turn from gray or whitish to a soft gray-green. Little growth is made until early spring when new shoots are produced rapidly. At that time the plants often appear quite green. By early April the flower heads begin to form; during May entire hillsides take on a delightful rosy tinge because of the profusion of flowers which are produced for at least a month. The seeds ripen quickly and the plants then go dormant by shedding a large portion of their leaves, and also by complete dying back of the upper branches. By midsummer the plants are so dry that they constitute a serious fire hazard. Several years ago, during a brush fire adjacent to the Garden, we observed that the dry seed heads would ignite from the heat, although the flames were at least 15 ft. away.

Purple Sage is an important bee plant as well as an effective hillside cover to prevent erosion. Recently it has become a valuable wartime source of sage leaves. One large spice company harvested 50 tons of leaves in 1942, and reports that the product is satisfactory.

We have never propagated *Salvia leucophylla* extensively because of its great profusion as an indigenous plant within the confines of the Garden. The response of some of these plants to incidental irrigation has been remarkable, and not only are the bushes larger and produce more flowers than before, but they remain active longer and have not died out as a result. as do many plants when given additional water.

Seeds of *Salvia leucophylla* germinate within 2 weeks when planted in flats in early fall, and the seedlings are easily handled. We have grown several thousand seedlings, mostly in tar-paper pots, for use on road cuts and fills. Midwinter planting when the seedlings were a few inches high and a single watering have been all the care given. An informal hedge has been maintained for several years, its only attention has been a single cutting back following flowering each year.

The Purple Sage, like other California sages, is not suited to the average garden, but is an excellent plant for dry banks and hillsides where no care or irrigation can be given, and it is especially useful in the heavy clay soils of the coastal sections.

CARL B. WOLF

RANCHO SANTA ANA BOTANIC GARDEN

Dedication of Garden Foundation to the Board of Trustees for the Rancho Santa Ana Botanic Garden of the Native Plants of California:

"THE NATURE, OBJECT AND PURPOSE OF THE INSTITUTION HEREBY FOUNDED AND TO BE MAINTAINED HEREUNDER.

ITS NATURE: A botanic garden of the native plants of California, herbarium and botanical library, containing living and/or preserved specimens of trees, plants and flowers native to California, and literature relating thereto.

ITS OBJECT: The preservation and improvement of the property now transferred and such property as may hereafter be transferred to the Trustees for those who not only wish to enjoy, but to study, assembled in one accessible locality, native California plants; and for the advancement of science and education with reference to plant life indigenous to the State of California.

ITS PURPOSES: (a) An institution founded primarily for scientific research in the field of local botany.

(b) To preserve the native California flora, try to replenish the depleted supply of some of the rarest plants which are rapidly being exterminated, and bring together in a comparatively small area as complete a collection of the rich store of native California plants as can be grown in this southern section of the state, thereby promoting the general walfare of the people of the state by providing the means for encouraging and carrying on the above mentioned activities in said state and by doing such other things as may be necessary and desirable to carry out the objects hereof."

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